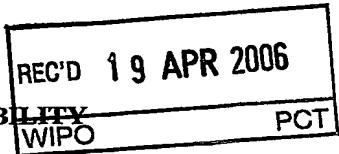


## PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference NM-CHANG	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/KR2004/003394</b>	International filing date (day/month/year) <b>22 DECEMBER 2004 (22.12.2004)</b>	Priority date (day/month/year) 27 DECEMBER 2003 (27.12.2003)	
International Patent Classification (IPC) or national classification and IPC <b>F03D 5/02(2006.01)i</b>			
Applicant <b>JANG, Kil-Hun</b>			

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:
  - sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
  - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- Box No. I Basis of the report
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

Date of submission of the demand <b>26 APRIL 2005 (26.04.2005)</b>	Date of completion of this report <b>05 APRIL 2006 (05.04.2006)</b>
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer <b>SONG, Jay Wook</b> Telephone No. 82-42-481-5487

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

International application No.

PCT/KR2004/003394

**Box No. I Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:

  - international search (under Rules 12.3 and 23.1(b))
  - publication of the international application (under Rule 12.4)
  - international preliminary examination (under Rules 55.2 and/or 55.3)
  
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished

the description:  
pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
  
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets \_\_\_\_\_  
 the sequence listing (*specify*) : \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*) : \_\_\_\_\_
  
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets \_\_\_\_\_  
 the sequence listing (*specify*) : \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*) : \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003394

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1-10	YES
	Claims	None	NO
Inventive step (IS)	Claims	2-10	YES
	Claims	1	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims	None	NO

## 2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: US 4,756,666

D2: WO 02/29248

D1 describes a power generating means wherein a closed loop track (3) is mounted on a number of posts (17) and a plurality of sail structures are installed on the track (3). The sail structures are connected to each other by a string (2) and driven along the track (3) by the wind force, which makes gear wheels (6,14) rotate to transmit power to a generator.

D2 discloses a variable surface sail which adjusts its surface area by an electric motor (19) depending on wind conditions.

D1 and D2 include most of the technical features of claim 1 except for two power generating means (100, 100') installed to have symmetrical structures. Thus, the subject matter of claim 1 is novel under PCT Article 33(1) and (2). As a consequence, the subject matter of the dependent claims 2 to 10 is also novel.

However, it would be obvious to a person skilled in the art to combine D1 and D2 without the exercise of inventive skill because they share a common approach to obtaining the wind energy through utilizing a sail structure.

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

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**Supplemental Box****In case the space in any of the preceding boxes is not sufficient.****Continuation of:****Box No.V**

There is a difference between claim 1 and the cited documents D1 and D2 in that the two power generating means of claim 1 are installed to have symmetrical structures. However, it does not require an inventive skill or a great effort for a person skilled in the art to add power generating means as described in claim 1. Therefore, the subject matter of claim 1 is not considered to involve an inventive step under PCT Article 33(3).

Claims 2 to 10 which are dependent on claim 1 limit the technical features of claim 1 or add some technical features to claim 1. Neither of said documents teach or fairly suggest the technical features of claims 2-10. Therefore, claims 2 to 10 meet the criteria set out in PCT Article 33(3),

Claims 1 to 10 meet the requirements of PCT Article 33(4), because the claimed invention can be made or used in industry.